General

Guideline Title

Best evidence statement (BESt). Screening for uveitis in children with juvenile idiopathic arthritis (JIA).

Bibliographic Source(s)

Cincinnati Children's Hospital Medical Center. Best evidence statement (BESt). Screening for uveitis in children with juvenile idiopathic arthritis (JIA). Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 2012 Jun 18. 6 p. [12 references]

Guideline Status

This is the current release of the guideline.

Recommendations

Major Recommendations

The strength of the recommendation (strongly recommended, recommended, or no recommendation) and the quality of the evidence (1aâ€'5b) are defined at the end of the "Major Recommendations" field.

1. It is recommended that a referral for an initial screening examination for uveitis be made by the rheumatology provider upon diagnosis of juvenile idiopathic arthritis (JIA), and the exam be performed within one month after diagnosis of JIA (Carvounis et al., 2006 [1a]; Grassi et al., 2007 [4a]; Heiligenhaus et al., 2007 [3a]; Cassidy et al., 2006 [5a]).
   Note: The onset of uveitis is often asymptomatic and/or occurs in children unable to recognize and verbalize symptoms (Cassidy et al., 2006 [5a]; Woreta et al., 2007 [4b]).

2. It is recommended that after the initial screening examination, regular follow-up screenings be maintained based on risk category and classification (see Table 2 in the original guideline document: Suggested screening intervals in patients with JIA) (Heiligenhaus et al., 2007 [3a]).
   Note: Risk category and classification include the categories of the subtype of JIA, antinuclear antibody (ANA) status, age of onset of JIA and duration of JIA (Heiligenhaus et al., 2007 [3a]).

3. It is recommended that screening change from every six months to every twelve months in ANA positive patients with disease onset >6 years of age who have not had uveitis within the first two years of JIA diagnosis (Heiligenhaus et al., 2007 [3a]; Saurenmann et al., 2010 [4a]; Woreta et al., 2007 [4b]).
   Note: The risk of developing additional complications between four years and six years of onset is minimal; this decreased risk supports a change in the screening recommendation in these patients (Heiligenhaus et al., 2007 [3a]; Saurenmann et al., 2010 [4a]; Woreta et al., 2007 [4b]).

4. It is recommended that if the patient is ≤6 years of age and the provider has a strong suspicion of JIA or the patient is known to test positive for ANAs, the provider proactively refer the patient for a screening examination for uveitis (Bolt et al., 2008 [4a]; Woreta et al., 2007 [4b]; Heiligenhaus et al., 2007 [3a]).
   Note: Given that the risk of uveitis is highest among ANA positive patients age <2 years, it is beneficial to make every effort to schedule an ophthalmology assessment at the earliest possible time. This could be prior or on the day of the rheumatology assessment (Local Consensus [5]).
5. It is recommended that screenings for uveitis be performed by an optometrist or ophthalmologist experienced in pediatric care, using a slit lamp procedure (Cassidy et al., 2006 [5a]; Heiligenhaus et al., 2007 [3a]).

Definitions:

Table of Evidence Levels

Quality Level	Definition
1a† or 1b†	Systematic review, meta-analysis, or meta-synthesis of multiple studies
2a or 2b	Best study design for domain
3a or 3b	Fair study design for domain
4a or 4b	Weak study design for domain
5a or 5b	General review, expert opinion, case report, consensus report, or guideline
5	Local Consensus

†a = good quality study; b = lesser quality study

Table of Language and Definitions for Recommendation Strength

Language for Strength	Definition
It is strongly recommended that… It is strongly recommended that…not…	When the dimensions for judging the strength of the evidence are applied, there is high support that benefits clearly outweigh risks and burdens (*or vice versa for negative recommendations*).
It is recommended that… It is recommended that…not…	When the dimensions for judging the strength of the evidence are applied, there is moderate support that benefits are closely balanced with risks and burdens.
There is insufficient evidence and a lack of consensus to make a recommendation…	

Note: See the original guideline document for the dimensions used for judging the strength of the recommendation.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

- Uveitis
- Juvenile idiopathic arthritis (JIA)

Guideline Category

Risk Assessment

Screening

Clinical Specialty

Family Practice

Ophthalmology

Pediatrics

Rheumatology

Intended Users

Advanced Practice Nurses

Nurses

Physician Assistants

Physicians

Guideline Objective(s)

To evaluate, in pediatric patients 0 to 18 years of age with juvenile idiopathic arthritis (JIA), what the optimal ophthalmologic screening schedule is to prevent and minimize uveitis-associated morbidity

Target Population

Children (0 to 18 years of age) diagnosed with juvenile idiopathic arthritis (JIA)

Note: Children with JIA who have been previously diagnosed with uveitis are excluded

Interventions and Practices Considered

Screening examinations for uveitis (initial examination and suggested screening intervals)

Major Outcomes Considered

Uveitis-associated morbidity including cataracts, glaucoma, band keratopathy, phthisis bulbi and loss of vision

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Searches of Unpublished Data

Description of Methods Used to Collect/Select the Evidence

Search Strategy

1. Initial Search – performed 9-2011
   Databases
   - Scopus
   - PubMed
   - OVID EBMR Review
   - CINAHL – OVID

   Search Terms & MeSH Terms
   - Scopus: Juvenile Idiopathic Arthritis and Uveitis and diagnosis
   - PubMed: Uveitis/diagnosis and Arthritis, Juvenile Rheumatoid and English and last 5 years
   - OVID EMBR Review: ("Uveitis/diagnosis"[Mesh]) AND "Arthritis, Juvenile Rheumatoid"[Mesh] AND (English[lang] AND "last 5 years"[PDat]) – No results
   - CINAHL: Arthritis, Juvenile Rheumatoid and Uveitis+/DI
   - Children; human; English (2006 to present)

   Website Search of all known ophthalmology related websites – for guidelines related to juvenile rheumatoid arthritis (JRA) screening for uveitis
   - National Guideline Clearinghouse, American Academy of Pediatrics, American Academy of Ophthalmology, American Academy of Pediatric Ophthalmology and Strabismus, American Board of Ophthalmology, Association for Research in Vision and Ophthalmology, American Society of Retina Specialists, British Ophthalmic Anaesthesia Society, Ophthalmic Imaging Association, Canadian Ophthalmological Society, German Ophthalmology Society, Ophthalmic Anesthesia Society, Philippine Academy of Ophthalmology, Royal College of Ophthalmologists, Swedish Ophthalmological Society Guidelines, Systematic Reviews, and Meta-Analyses (2006 to present)
2. Additional articles identified by clinicians
3. Additional articles identified from a search based on the strategy from the Carvounis systematic review was conducted for publication dates subsequent to that review:
   - 2005 to present
   - Ovid Medline, English, human
   - Search terms:
     (Juvenile Arthritis OR JRA OR Juvenile Rheumatoid Arthritis OR Juvenile Chronic Arthritis OR JCA OR Juvenile Idiopathic Arthritis OR JIA Arthritis)
     AND
     (Eye OR Ocular OR Eye Diseases OR Ophthalmic OR Ophthalmological OR Iritis OR Iridocyclitis OR Uveitis OR cataract OR Glaucoma)

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Table of Evidence Levels

Quality Level	Definition
1a† or 1b†	Systematic review, meta-analysis, or meta-synthesis of multiple studies
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5	Local Consensus

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Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review

Description of the Methods Used to Analyze the Evidence

Not stated

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Not stated

Rating Scheme for the Strength of the Recommendations

Table of Language and Definitions for Recommendation Strength

Language for Strength	Definition
It is strongly recommended that… It is strongly recommended that…not…	When the dimensions for judging the strength of the evidence are applied, there is high support that benefits clearly outweigh risks and burdens (*or vice versa for negative recommendations*).
It is recommended that… It is recommended that…not…	When the dimensions for judging the strength of the evidence are applied, there is moderate support that benefits are closely balanced with risks and burdens.
There is insufficient evidence and a lack of consensus to make a recommendation…	

Note: See the original guideline document for the dimensions used for judging the strength of the recommendation.

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Peer Review

Description of Method of Guideline Validation

This Best Evidence Statement has been reviewed against quality criteria by two independent reviewers from the Cincinnati Children's Hospital Medical Center (CCHMC) Evidence Collaboration.

Evidence Supporting the Recommendations

References Supporting the Recommendations

Bolt IB, Cannizzaro E, Seger R, Saurenmann RK. Risk factors and longterm outcome of juvenile idiopathic arthritis-associated uveitis in Switzerland. J Rheumatol. 2008 Apr;35(4):703-6. PubMed

Carvounis PE, Herman DC, Cha S, Burke JP. Incidence and outcomes of uveitis in juvenile rheumatoid arthritis, a synthesis of the literature. Graefes Arch Clin Exp Ophthalmol. 2006 Mar;244(3):281-90. PubMed

Cassidy J, Kivlin J, Lindsley C, Nocton J, Section on Rheumatology, Section on Ophthalmology. Ophthalmologic examinations in children with juvenile rheumatoid arthritis. Pediatrics. 2006 May;117(5):1843-5. [19 references] PubMed

Grassi A, Corona F, Casellato A, Carnelli V, Bardare M. Prevalence and outcome of juvenile idiopathic arthritis-associated uveitis and relation to articular disease. J Rheumatol. 2007 May;34(5):1139-45. PubMed

Heiligenhaus A, Niewerth M, Ganser G, Heinz C, Minden K, German Uveitis in Childhood Study Group. Prevalence and complications of uveitis in juvenile idiopathic arthritis in a population-based nation-wide study in Germany: suggested modification of the current screening guidelines. Rheumatology (Oxford). 2007 Jun;46(6):1015-9. PubMed

Saurenmann RK, Levin AV, Feldman BM, Laxer RM, Schneider R, Silverman ED. Risk factors for development of uveitis differ between girls and boys with juvenile idiopathic arthritis. Arthritis Rheum. 2010 Jun;62(6):1824-8. PubMed

Woreta F, Thorne JE, Jabs DA, Kedhar SR, Dunn JP. Risk factors for ocular complications and poor visual acuity at presentation among patients with uveitis associated with juvenile idiopathic arthritis. Am J Ophthalmol. 2007 Apr;143(4):647-55. PubMed

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

- Prevention and minimization of uveitis-associated morbidity
- Early identification of uveitis allows prompt initiation of treatment.

Potential Harms

Not stated

Qualifying Statements

Qualifying Statements

This Best Evidence Statement addresses only key points of care for the target population; it is not intended to be a comprehensive practice guideline. These recommendations result from review of literature and practices current at the time of their formulation. This Best Evidence Statement does not preclude using care modalities proven efficacious in studies published subsequent to the current revision of this document. This document is not intended to impose standards of care preventing selective variances from the recommendations to meet the specific and unique requirements of individual patients. Adherence to this Statement is voluntary. The clinician in light of the individual circumstances presented by the patient must make the ultimate judgment regarding the priority of any specific procedure.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Audit Criteria/Indicators

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Living with Illness

Staying Healthy

IOM Domain

Effectiveness

Identifying Information and Availability

Bibliographic Source(s)

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Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2012 Jun 18

Guideline Developer(s)

Cincinnati Children's Hospital Medical Center - Hospital/Medical Center

Source(s) of Funding

Cincinnati Children's Hospital Medical Center

Guideline Committee

Not stated

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Financial Disclosures/Conflicts of Interest

No financial conflicts of interest were found.

Guideline Status

This is the current release of the guideline.

Guideline Availability

Electronic copies: Available from the Cincinnati Children's Hospital Medical Center Web site.

Print copies: For information regarding the full-text guideline, print copies, or evidence-based practice support services contact the Cincinnati Children's Hospital Medical Center Health James M. Anderson Center for Health Systems Excellence at EBDMInfo@cchmc.org.

Availability of Companion Documents

The following are available:

- Judging the strength of a recommendation. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 2008 Jan. 1 p. Available from the Cincinnati Children's Hospital Medical Center Web site.
- Grading a body of evidence to answer a clinical question. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 1 p. Available from the Cincinnati Children's Hospital Medical Center Web site.
- Table of evidence levels. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 2008 Feb 29. 1 p. Available from the Cincinnati Children's Hospital Medical Center Web site.

Print copies: For information regarding the full-text guideline, print copies, or evidence-based practice support services contact the Cincinnati Children's Hospital Medical Center Health James M. Anderson Center for Health Systems Excellence at EBDMInfo@cchmc.org.

In addition, suggested process or outcome measures are available in the original guideline document.

Patient Resources

None available

NGC Status

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